JPRS-TEP-84-008 27 March 1984

Worldwide Report

EPIDEMIOLOGY



FOREIGN BROADCAST INFORMATION SERVICE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in <u>Government Reports</u>
<u>Announcements</u> issued semi-monthly by the National Technical
Information Service, and are listed in the <u>Monthly Catalog of U.S. Government Publications</u> issued by the <u>Superintendent of Documents</u>, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

27 March 1984

WORLDWIDE REPORT EPIDEMIOLOGY

CONTENTS

HUMAN DISEASES

| INTER-AMERICAN AFFAIRS | |
|--|---|
| Briefs Mexican, Guatemalan Talks on Diseases | 1 |
| BANGLADESH | |
| Outbreak of Intestinal Diseases Reported in District (THE NEW NATION, 18 Feb 84) | 2 |
| Briefs Gopalganj Cholera Deaths | 3 |
| BOTSWANA | |
| 1983 Measles Incidence, Deaths Reported (Tom Obondo-Okoyo; DAILY NEWS, 29 Feb 84) | 4 |
| EGYPT | |
| International Bilharzia Research Center Opens in Cairo (Suhayr Hidayat; AL-AHRAM, 21 Jan 84) | 5 |
| GUATEMALA | |
| Briefs Measles Outbreak | 6 |
| GUYANA | |
| Briefs Dirty Food Campaign Malaria Statistics | 7 |

HONG KONG

| | Relaxed Regulations Will Fase Entry of Foreign Doctors (Halima Guterres; SOUTH CHINA MORNING POST, 21 Jan 84) | 8 |
|---------|---|----------------|
| INDIA | | |
| | Ignorance Hinders Eradication of Leprosy (KHALEEJ TIMES, 28 Feb 84) | 10 |
| INDONES | SIA | |
| | DDT Production Begun for Malaria Eradication (SURABAYA POST, 13 Dec 83) | 12 |
| | 'Predator' To Be Used Against Mosquitoes as DDT Falls (TEMPO, 17 Dec 83) | 13 |
| MALAYS | TA . | |
| | Briefs New Dengue Cases | 16 |
| MEXICO | | |
| | Studies Reveal Incidence of Cerebral Cysticercosis (UNOMASUNO, 26 Dec 83) | 17 |
| | Briefs Sinaloa Record Polio Incidence | 19 |
| NEW ZEA | ALAND | |
| | Briefs More AIDS Likely | 20 |
| NIGERIA | A . | |
| | Malaria Reportedly Affects 50 Million Nigerians (Omfume Amurun; SUNDAY NEW NIGERIAN, 12 Feb 84) | 21 |
| | Trypanosomiasis Said Neglected for Lack of Funds (Dupe Motojehi; NEW NIGERIAN, 8 Feb 84) | 22 |
| | Briefs Sickle Cell Now Rampant Diarrhea Outbreak in Kano Tuberculosis Statistics | 23 23 23 |
| | Charges for Cholera Inoculations Measles Deaths | 24 24 |

PAKISTAN

| | Measles Vaccine: First Third World Unit Commissioned (KHALEEJ TIMES, 28 Feb 84) | 25 |
|--------|--|----------|
| PEOPLE | 'S REPUBLIC OF CHINA | |
| | Contagious Diseases Among Children Controlled in Shanghai (RENMIN RIBAO, 5 Jan 84) | 26 |
| | Effective Control of Viral Diseases Seen by 2000 (XINHUA, 29 Feb 84) | 28 |
| | Gansu Makes Progress in Controlling Endemic Disease (Bai Yun; RENMIN RIBAO, 19 Jan 84) | 30 |
| | Incidence of Keshan Disease Drops in Heilongjiang (Yu Haiyuan; JIANKANG BAO, 3 Jan 84) | 32 |
| | Commentator Urges More Snail Fever Prevention (RENMIN RIBAO, 29 Feb 84) | 34 |
| | Southern Counties, Cities Eliminate Snail Fever (XINHUA, 29 Feb 84) | 36 |
| PHILIP | PINES | |
| | 'Major' Leprosy Problem Seen in 10 Provinces (Divina C. Paredes; PHILIPPINES DAILY EXPRESS, 20 Feb 84) | 37 |
| | Briefs Bacolod Measles Deaths | 38 |
| SOUTH | AFRICA | |
| | Briefs Natal Typhoid Cases Typhoid Deaths Last Year | 39 39 |
| TANZAN | IA | |
| | Dar es Salaam School Children May Be Schistomiasis Sufferers (DAILY NEWS, 2 Mar 84) | 40 |
| | Briefs Hospital Deaths From Malaria Cholera Patient Hospitalized Six Cholera Deaths | 41 41 42 |
| | - Dan Univiola Deachin | 44.7 |

THAILAND

| Losses From Rabies Noted (SIAM RAT, 18 Jan 84) | 43 |
|---|----------------------|
| Trichinosis Statistics Reported (THAI RAT, 28 Dec 83) | 44 |
| Statistical, Occupational Breakdown of Gonorrhea Victims (Pan Bandua; SIAM RAT SAPPADA WICHAN, 18 Dec 83) | 45 |
| Anti-Mosquito Microorganism Under Study (DAILY NEWS, 14 Dec 83) | 48 |
| Malaria Patients on Rise on Thai-PRK Border (THE NATION REVIEW, 6 Feb 84) | 49 |
| Briefs Gonorrhea Infection Rate Malaria Among Karens Cholera in Nonthaburi Cholera Count | 50 50 50 51 |
| TRINIDAD AND TOBAGO | |
| Briefs Gastro Warning | 52 |
| VIETNAM | |
| Briefe Malaria Situation Reviewed | 53 |
| ZAMBIA | |
| Briefs Reported Malaria Outbreak, Deaths | 54 |
| ZIMBABWE | |
| Cholera Incidence, Control Measures Noted (Andre Viljoen; RAND DAILY MAIL, 23 Feb 84) | 55 |
| Briefs Cholera Prevention Measures Three Anthrax Patients Treated | 56 56 |
| ANIMAL DISEASES | |
| NAMIBIA | |
| Briefs Rabies Vaccination for Dogs | 57 |

NIGERIA

| Coordinated Efforts Urged To Stop Rinderpest in West Africa (Waziri Garba; NEW NIGERIAN, 16 Jan 84) | 58 |
|---|----|
| Rinderpest Kills 150,000 Cattle in Gongola (Abu Tapidi; SUNDAY NEW NIGERIAN, 12 Feb 84) | 59 |
| Shortages Reportedly Affect Rinderpest Campaign (NEW NIGERIAN, 16 Jan 84) | 60 |
| Problems Noted With Rinderpest Vaccines (NEW NIGERIAN, various dates) | 61 |
| Supply to Gongola Indian Vaccine 'Unsuitable', by Dupe Motojehi Vaccine From Kenya | |
| TANZANIA | |
| Antirinderpest Campaign Reportedly Successful (Musa Lupatu; DAILY NEWS, 2 Mar 84) | 64 |
| ZAMBIA | |
| Briefs Corridor Disease Control Measure | 65 |
| ZIMBABWE | |
| Briefs Progress Against Tsetse Fly | 66 |
| PLAN DISEASES AND INSECT PESTS | |
| MOZAMBIQUE | |
| Briefs Plague Threatens Rice Crop | 67 |
| PHILIPPINES | |
| Bug-Infested Palawan Rice Fields May Be Burned (PHILIPPINES DAILY EXPRESS, 21 Feb 84) | 68 |
| THAILAND | |
| Scientists Find Microorganism To Suppress Rice Plant Disease (DAO SIAM, 1 Nov 83) | 69 |

MEXICAN, GUATEMALAN TALKS ON DISEASES--Tapachula, Chis. With the purpose of implementing plans to attack the diseases in the frontier zone between Mexico and Guatemala, the second meeting on health was initiated yesterday in Quetzaltenango, Guatemala, with the participation of medical authorities from both countries. They are intending to carry out a joint effort to control gastroenteritis, tuberculosis, malaria, and dengue, and also to apply vaccines to immunize against diseases such as polio, tetanus, etc. At this event, which will end on the 28th, the participants for Mexico are: Raul Carrillo, director of coordinated services, public health office; Andres Martin Bellaeche, director of the southern zone for the same office; Manuel Quijano Nareso, director of international affairs, ministry of health and social welfare; and Victorico Ramos Grajales, head of coordinated services, public health, state of Chiapas. The fellow countrymen who live in the frontier zone are exposed to several diseases because of the conditions in which they live. It is expected, however, that the measures to be undertaken shortly will better their health situation. [Text] [Tuxtla Gutierrez LA VOZ DEL SURESTE in Spanish 26 Jan 84 p 1] 12501

OUTBREAK OF INTESTINAL DISEASES REPORTED IN DISTRICT

Dhaka THE NEW NATION in English 18 Feb 84 p 2

[Text] Thakurgaon, Feb 15--Intestinal diseases have broken out in Thakurgaon district in almost epidemic form and have taken a heavy toll of lives, according to medical sources here.

About 10,000 people have been suffering from the diseases in the district. Of them, 1,800 in Haripur upazila, 2,250 in Ranisankail upazila, 1,750 in Balia dangi upazila, 2,400 in Pirgonj upazila and 1,950 in Thakurgaon Sadar upazila.

Medical practitioners here attribute these diseases to the wholesale adulteration of food-stuff particularly edible oil and half crushed atta, which are being consumed by the people. The local doctors also complain that proper treatment of gastroenteritis and other intestinal diseases is hardly possible due to dearth of antibiotic medicine and saline water.

It is alleged that the curative and preventive measures taken by the local health department are not satisfactory and the diseases have been spreading to other places. People of the district have urged the authorities concerned to take effective measures to check further spread of the diseases. Blood dysentery has so far claimed the lives of 22 children in different parts of the district during the last four months and nearly 60 more children are suffering from the diseases.

The worst affected areas are: Haripur, Baliadangi, Ranisankail, Pirgonj and Gorea. According to local physicians, scarcity of pure drinking water is the main cause of the diseases.

GOPALCANJ CHOLERA DEATHS—Over 20 persons died of cholera and more than 300 others were affected in different villages under Gopalganj district during the last few days. Six have been sent to the affected areas to take necessary preventive measures. Meanwhile Lions Club of Dhaka East has also sent a medical team headed by Lion Khabil Ahmed Khabir to the affected areas. The team has carried 2500 oral saline packets collected from ICDDR, B. Lions Club is expected to open 20 medicare centres in the affected areas to bring the disease under control. When contacted, the District Administration of Gopalganj confirmed the breakout of cholera in the areas. He, however, said that the disease has already been brought under control. The areas which are badly affected include Satpara, Raghunathpur, Boltali, Majhigati and Kathi Unions. [Text] [Dhaka THE BANGLADESH OBSERVER in English 8 Feb 84 p 12]

1983 MEASLES INCIDENCE, DEATHS REPORTED

Gaborone DAILY NEWS in English 29 Feb 84 p 1

[Article by Tom Obondo-Okoyo]

[Text]

A total of 1 851 cases of measies were reported in Gaborone late last year, the majority of the patients treated at the Princess Marina Hospital

A recent report by the Epidemiology Unit of the Ministry of Health said that five children died of the disease during that period.

The report entitled 'Botswana Epidemiological Bulletin' said that after the introduction of measles vaccination in 1976, the intervals between the epidemics have become longer

"12.3 per cent of the patients were children under one year and 40.8 per cent were under four years, while 50.7 were found in the age-group of five," the report said.

"It would not be correct to draw the conclusion that vaccinated children are not protected against measles."

In the population, approximately eighty percent of all children were vaccinated against measles and the proportion between vaccinated and non-vaccinated children was four to one.

The data from Gaborone showed that if the target for vaccination was not lowered to six or seven months, most of the children would be protected.

"If a choice is made to lower the target age for vaccination, the consequence will have to be a re-vaccination at the age of fifteen months," the reported explained. SOPA

INTERNATIONAL BILHARZIA RES ARCH CENTER OPENS IN CAIRO

Cairo AL-AHRAM in Arabic 21 Jan 84 p 8

Article by Suhayr Hidayst: "An International Center for Bilharzia Research Established in Cairo; 10 Countries Are Participating in It"

Text7 It has been decided to establish an international center to combat bilharzia with the joint participation of the Academy of Scientific Research and the United Nations Development Program. Its headquarters will be the Theodore Bilharz Institute, as a center for a network of research institutes for developing countries which are suffering from the bilharzia problem. Ten advanced and developing countries will participate in it, and \$1.3 million have been allocated for it.

Dr Ibrahim Badran, chairman of the academy, declared that it has been decided to support the project, which is to be considered a major part of the 5-year plan and is to be launched in the governorates in the context of academic projects with the localities, and that the Ministries of Agriculture, Health, Redevelopment and Irrigation and other bodies concerned with the magnitude of the problem will take part in the project.

He added that the project has the objective of exchanging information within a group of developing countries, with attention to their environmental, social and economic circumstances. The 197/missing/program bearing on the fight against bilharsis will be reviewed to determine the accomplishments that have be a made and those that can be carried out as a point of departure for work on the project.

It has also been decided to assemble the recommendations related to this project as a start for preparing for the general meeting to be held from 12 to 16 March which all the countries participating in the project will take part in so that there will be an integrated plan of action as a point of departure for the experiment in solving this national problem, and a start in confronting other problems, such as family planning, and realizing the optimum use of scientific research for solving national problems.

11887

MEASLES OUTBREAK--Totonicapan, 19 February--It has been confirmed in Totonicapan Department Health offices that more than 25 children younger than 5 years of age have died in recent days as a result of an outbreak of measles in Santa Lucia La Reforma. This past week, employees of that branch of the General Directorate of Health Services put into motion a program of prevention, especially of massive vaccination of children, with the aim of avoiding more deaths, principally in rural areas. Health offices in Totonicapan, Santa Lucia La Reforma, San Francisco El Alto, and Santa Maria Chiquimula have participated in the prevention campaign. The health offices have recommended that mothers take measures which include not neglecting their children and not exposing them to drafts. During the emergency vaccination, health workers have succeeded in controlling the disease in more than 130 children in 5 days. In recent days, 12 fatal measles cases occurred in Santa Maria Chiquimula, a town near Santa Lucia La Reforma in Totonicapan Department, where the General Directorate of Health Services also ordered massive vaccination of children. [By Carlos Benigno Loarca] [Excerpts] [Guatemala City DIARIO EL GRAFICO in Spanish 20 Feb 84 p 87]

DIRTY FOOD CAMPAIGN--FACTORIES manufacturing food will be one of the many areas where the Analyst/Food and Drugs Department of the Ministry of Health will focus more attention during this year. In a statement issued by the department, a spokesman said that positive steps will be taken to reduce the number of factories operating under insanitary conditions. There will be more visits by food inspectors and emphasis will be placed on educational programmes in proper food handling and processing. The spokesman said that legal proceedings will also be instituted to ensure a continuous upkeep of hygienic and sanitary standards. He said the primary objective of the Analyst Food and Drugs department, was to safeguard the health of the nation by proving safe and nutritionally-acceptable food and also to minimise or eliminate contamination in the process of manufacturing of food or during storage. He remarked that nearly all the factories manufacturing food were operating under unhygienic and insanitary conditions. This has been the concern of many health workers. Another area mentioned is the Water Quality Control department where tests will be carried out to determine the suitability of water for industrial and agricultural purposes and also monitor the quality of drinking water. [Text] [Georgetown SUNDAY CHRONICLE in English 22 Jan 84 p 1]

MALARIA STATISTICS—NINE hundred and ninety-five malaria cases were treated in the Rupununi during last year. The Officer—in-Charge of the Malaria Eradication Programme in that Region expressed thanks to the voluntary workers who assisted his team in effectively carrying out the exercise. According to Cde. Michael Gill, the prolonged dry weather was one factor in their favour. It enabled collaborators to traverse the hilly and mountainous areas. [Text] [Georgetown GUYANA CHRONICLE in English 23 Jan 84 p 3]

RELAXID REGULATIONS WILL EASE ENTRY OF FOREIGN DOCTORS

Hong Kong SOUTH CHINA MORNING POST in English 21 Jan 84 p 8

[Article by Halima Guterres]

Text

The Government is seeking to open the doors to more foreign medical graduates by proposing to amend the law to simplify the registration of overseas doctors.

Under the Medical Registration (Amendment) Bill 1984 published yesterday, the Medical Council will have the power to exempt doctors, seeking registration through the licentiate scheme, from parts of the requirements.

The Bill also removes the residential qualification for people taking part in the licentiate examination.

The combined effect of these provisions is that doctors seeking registration to practise in Hongkong through the licentiate scheme will be able to complete the registration process in just eight or nine months compared with at least 2½ years under the present arrangements.

Yesterday a spokesman for the Medical Council welcomed the Government proposals and said they will allow the council more discretionary powers and greater flexibility in granting registration.

Doctors most likely to benefit from the changes are graduates from America and Canada — including local students who went to these countries for medical train-

Hongkong imposes restrictions on these graduates at present and although in future thes will still have to pass the licentiate examination before being granted registration, the simplified procedures are expected to remove the main stumbling blocks that have deterred some from working here

If the Bill is passed by the Legislative Council, doctors seeking registration through the licentiate scheme will be able to do so without having first lived in Hongkong for a continuous period of at least 180 days, or having the right to land in Hongkong.

In addition they may also be exempted from sitting for the medical English test and the 18-month practical assessment or "externship" period that is now required

The exemptions will be granted only if the Medical Council is satisfied that the applicant has received his medical training in English and has served a least 12 months internship covering six months of medicine and six months of surgery.

A Government spokesman said that the Bill would be in the interests of the public in view of the demand for dictors.

Asked if he thought the relaxation of the regulations would lead to a surge of over-seas applications, the Medical Council spokesman said there was no reason to believe that large numbers of overseas doctors will flood to Hong-kons.

"If they do want to come here it will probably be because they have special connections here such as family ties," he said.

The spokesman said that last year, 250 new doctors gained registration, of whom about 130 had overseas qualifications.

"One would not expect a vast increase over and above the numbers that are already coming in," he said.

There are nearly 4,000 registered doctors here of whom about half work in public hospitals and clinics and the rest in the private sector.

The spokesman said the Bill is the result of a move by the Medical Council in 1978 to seek greater powers of discretion in the licentiate scheme.

Although, in theory, the changes in the licentiate scheme will apply to Chinatrained graduates seeking registration, he said that in practice it is unlikely that Chinese-trained doctors will benefit from the simplified procedures at this stage.

This is because most will not possess the necessary documentation to substantiate their application for exemptions

But with the present stability in China and the medical schools rapidly catching up to international standards, members of the Medical Council believe that eventually the same exemptions will be extended to Chinese graduates as well

Automatic recognition of medical qualifications for practice in Hongkong has been confined to those qualifications obtained in Hongkong, the United Kingdom, Ireland and certain Commonwealth countries, such as Singapore

This position will be maintained under the proposed legislation so that in future only the following three categories of doctors will be allowed to practise here.

Holders of a Hongkong

 Holders

diploma

 Holders of a United Kingdom or Irish diploma or a recognised Commonwealth diploma

• Licentiates

Last year members of the Executive Council are understood to have considered lifting restrictions on doctors from "reputable" medical colleges in America, Canada and Europe, and extending automatic recognition to them

But the idea was strongly opposed by the Medical Council as well as the two medical associations, mainly because such a move would mean that standards of medical proficiency had to be assumed rather than assured

The present changes were suggested by the medical profession instead as a means of ensuring that reasonable professional standards would be maintained and that doctors holding appropriate medical qualifications would be encouraged to practise in Hongkong.

CSO: 5400/7537a

IGNORANCE HINDERS ERADICATION OF LEPROSY

Dubayy KHALEEJ TIMES in English 28 Feb 84 p 7

[Text] The 12th Leprosy Congress held in Delhi this week brought together medical experts from all over the world.

Leprosy is something of which India has considerable experience. There are about 15 million patients in the world and a quarter of them live in India.

The message which came out of the conference was that leprosy is curable—if it is treated quickly. The problem is getting that message across and nowhere is this more difficult than in India where, despite the effort of Mahatma Gandhi and many dedicated workers, the disease still raises social fears, possibly leading to the unfortunate patient becoming an outcast.

More than 60 per cent of India's leprosy patients are from the south: there are 628,000 in Andhra Pradesh and 783,000 in Tamil Nadu. More than half the cases are found in people below the age of 20.

These shocking statistics come 30 years after India launched a national leprosy eradication programme. But in fact the first efforts to tackle the disease came long, long before that. It is believed that leprosy was first identified in the seventh century BC by the Indian physician Susruta. And some of the natural, Ayurvedic drugs which he prescribed in his literature are still used today.

Sasruta, however, faced the same problems as today's doctors with all their modern medicines.

As Prime Minister Indira Gandhi said while opening the conference: "Few groups of persons have been subjected to greater indignity and persecution than those who have had the misfortune to contract this disease. As if the pathos of disfigurement were not enough, they suffer ostracism and abuse.

"The dread connected with leprosy through the centuries is an index of our own ignorance."

Mrs Gandhi--like everyone in the audience, which included Mother Teresa--avoided using the term 'leper'. As Dr D. V. Desikan, Director of the Institute for Leprosy in Agra, explained, that is an odious term associated with indignity and degradation rather than a word used to describe a person afflicted with the disease.

Mr S. P. Tare, Director of the Gandhi Memorial Leprosy Foundation at Wardha in Maharashtra, pointed out that even the law in India reflected the prejudices handed down over the centuries.

"For all practical purpose, a patient of leprosy, in the eyes of the law, is little short of a criminal who, at the slightest opportunity, should be put behind bars so that he does not pollute the social atmosphere," said Mr Tate.

A law passed in 1898 and never repealed, prohibited leprosy patients from 'preparation or sale of food or drinks or clothes, taking water from public wells, driving or travelling through public conveyance and any such transactions which will affect public health.'

Another act prohibited them from travelling on the railways and various marriage acts—passed as recently as the mid-fifties—allow for divorce on the grounds of one partner suffering from leprosy.

Dr M. S. Nilakanta Rao, President of the National Leprosy Organisation and a World Health Organisation consultant to the government, said: "If children have the correct understanding about leprosy, the stigma will melt away in the measurable future. If they get the disease, they will take treatment. If others get the disease, they will encourage them to take treatment from the first day and get cured without deformity.

"Intensive health education beamed towards today's children will make the difference to tomorrow's leprosy control work."

It is a message that Susruta knew 2,700 years ago. Will this generation have any more luck in getting it across?

INDONESIA

DDT PRODUCTION BEGUN FOR MALARIA ERADICATION

Surabaya SURABAYA POST in Indonesian 13 Dec 83 p 1

[Text] Indonesia is starting to produce DDT for use in eradicating malaria but not for use in agriculture as this is very dangerous.

This was said by minister of health, Dr Suwardjeno Suryaningrat, Tuesday morning at the Bina Graha [executive office building] in agreement with his report to President Suharto.

Suwardjono said he had already discussed the prohibition of DDT for use in agriculture with the vice minister for increased food production, Engr Wardoyo.

In response to a question, the minister said that the mishandling of hundreds of tons of DDT that was circulated and sold to farmers at a low price by people in the Health Department in North Sumatra was a great mistake.

"This was wrong, not just because of the mishandling, but also because it reached the farmers. The use of DDT in agriculture can lead to death," he said.

DDT will be produced for the first time in Indonesia at the rate of 600 tons per year. This is at the recommendation of WHO (UN World Health Organization) that the substance will be effective in malaria eradication, the minister said.

He admitted that eradication of the spread of malaria must still be carried out in Indonesia although the need is decreasing. In Java, malaria occurs in one out of 1,000 people. But outside Java, the numbers are still high, 100 cases per 1,000 people.

According to the minister, in order for malaria eradication to be effective, spraying must be done every six months.

12405

'PREDATOR' TO BE USED AGAINST MOSQUITOES AS DDT FALLS

Jakarta TEMPO in Indonesian 17 Dec 83 p 78

[Article: "Banjarnegara Tries A Predator"]

[Text] While malaria is still a threat in Indonesia, DDT is no longer effective as a mosquito spray. For this reason, in accordance with a suggestion from the WHO [World Health Organization] the 'predator' system for malaria eradication was begun last week.

This new method was first tried in several areas in the Banjarnegara Regency, Central Java. This area was chosen because malaria has been spreading epidemically since last October in several places. The area health department has recorded around 4,250 cases of malaria among the almost one million residents of Banjarnegara.

They figure that number is continuing to grow. "It has reached the point where it is very difficult for us to cope with," said Broto Hadiprabowo, head of the P3M [Center for the Prevention of Malaria], Banjarnegara Health Department subunit. Furthermore, the director general of P3M of the Health Department has shown that in the years 1972 to 1983 the disease, which is spread by Anopheles mosquitoes, has been spreading again in 19 provinces, including Central Java.

The predator system relies on the tin-head or "pancak" fish that are usually raised in rice fields, ponds and other places that are suspected as being breeding places for malaria mosquitoes. It is hoped these fish will be able to wipe out mosquito larvae.

This method, which actually was discovered at the same time as DDT, will now begin to be developed with the example project in Banjarnegara. About one million fry are ready to be distributed to various parts of Banjarnegara.

According to Broto, this step is being taken because people are tired of DDT and because there are signs that the anopheles acconites, the mosquito found in these areas, is immune to DDT. Residents of the area say that DDT "only dirties the walls of their houses, smells, and attracts bedbugs," said Broto. This last thing is possible because DDT kills the insects that feed on bedbugs.

The predator system was chosen because it is the cheapest alternative method to DDT for eradicating malaria mosquitoes, especially compared to another chemical spray: fenitrotion. This liquid is much more effective than DDT, but it is expensive.

To spray one house, for example, one kilogram of fenitrotion at a cost of 5,000 rupiahs is necessary; the necessary DDT costs 600 rupiahs. But even with DDT, the Banjarnegara Health Department only has funds to do widespread spraying twice a year. It is hard to imagine that this kind of spraying can effectively reach the mosquitoes' breeding places in almost all of the 18 subdistricts of Banjarnegara.

With the residents' unconcerned attitude, it can be imagined how the malaria mosquitoes, whose activities are highest at night, are free to inject their plasmodium parasites into the bodies of the residents of Banjarnegara who, according to research, tend to stay up at night guarding their rice fields. Perhaps they only realize when they begin to experience the "shivering fever" as a result of the parasites left in their spleen by the mosquitoes.

All this does not only increase the number of malaria sufferers but also causes changes in the character and behavior of the mosquitoes there. The results of a study by the parasitology team of the Medical Faculty, Gadjah Mada University, Yogyakarta, shows, among other things, that these changes occur: the mosquitoes change from only sucking the blood of animals (zoophilic) to only sucking the blood of people (anthrophilic). "The mosquitoes no longer like the blood of animals (cows, water buffalo, horses, and others) because they're used to human blood," said Sugeng Yuwono, secretary of the Parasitology Team of FKUGM [School of Medicine, Gadjah Mada University].

According to him, this has happened mainly because the livestock population of Banjarnegara is small. One village would have, at most, three cows or water buffaloes, he said. These animals are kept in pens -- next to or behind the owner's house -- and are rarely let out. This limits them as targets for the mosquitoes. In other words, wherever they turn looking for victims, they always find people.

Often "dealing with people," according to the study, Sugeng continued, causes the mosquitoes' sense of smell -- as with humans -- to become sensitive to DDT. They can smell even a small amount of spray immediately and fly away to avoid it. It is more difficult as spraying is usually done and is possible only, not routinely and not evenly.

Finally, everything comes together: the mosquitoes are immune and have changed their behavior and the residents are reluctant to wipe out the mosquitoes' breeding places because they hate DDT.

With its average temperature 20° - 26°C, this kabupaten is an ideal area for malaria mosquitoes, said Broto. There are many swamps and gullies full of water that are protected by hills. In 1977, this area had the highest incidence of malaria in Indonesia: more than 200,000 inhabitants had malaria.

Persistent eradication and treatment brought those figures down the next year. But in 1980, Banjarnegara held the record again. With more intensive eradication measures, the numbers which had reached nearly 40,000 receded again.

Now the situation has returned to the way it was in 1977. But now, because funds are limited, whether or not we want to, effective spraying with fenitrotin cannot be done. Instead, the predator system will be tried. Will this be effective? "It's still too early to tell," said Broto.

The number of deaths from malaria is not small. According to WHO, last year, 200 million people throughout the world suffered this disease. The latest figure from Indonesia has not yet been announced. But the danger can be imagined from the case of Banjarnegara.

12405

NEW DENGUE CASES--Twelve more dengue cases have been reported in Sarawak bringing the total number of cases reported to 100 so far this year. A state medical and health services spokesman says there have been 12 cases reported--11 were of dengue fever and the other of dengue hemorrhagic fever. [Text] [Kuala Lumpur Domestic Service in English 1130 GMT 13 Feb 84]

STUDIES REVEAL INCIDENCE OF CEREBRAL CYSTICERCOSIS

Mexico City UNOMASUNO in Spanish 26 Dec 83 pp 1, 6

[Excerpts] According to studies conducted at the Secretariat of Health and Public Assistance (SSA) General Hospital, the IMSS [Mexican Social Security Institute] National Medical Center, the Nutritional Diseases Hospital (a decentralized institution) and the Pediatric Hospital, one out of every 100 deaths in Mexico is due to cerebral cysticercosis.

Owing to its frequency and seriousness, this parasitosis is a serious public health problem and also the cause of severe economic damage, because of the destruction of contaminated pork that it requires; because bladder-worms have been found in up to 80 percent of the hogs slaughtered in abbatoirs on the outskirts of the Federal District; whereas this disease in the country is reported to be more serious in the lowlands, according to Dr Manuel Chavarria, a researcher at the UNAM [National Autonomous University of Mexico] School of Veterinary Medicine and Zootechny, who has been engaged in studies of cysticercosis in Mexico for over 7 years.

In the studies at the aforementioned institutions, it has been noted that one out of every four patients on whom a cranial operation is performed received the surgery to treat this parasitosis. In the case of the SSA General Hospital, 13 percent of the autopsies performed in 1982 in all sections showed cerebral cysticercosis as the cause of death, according to Dr Arturo Carrillo Roman, a physician attached to this institution and a coordinator of the Neurosurgical Clinic at the UNAM School of Medicine.

Of the 1,463 surgical operations on the skull performed by the SSA General Hospital's Neurosurgical Service from 1976 to 1980, 515 were to treat this disease; representing 28.35 percent of the total. Dr Carrillo also noted that 20 percent of the bels in this unit are for patients with cysticercosis.

If the number of healthy carriers is added to these figures, it turns out that one out of every three Mexicans has cysticercosis. This is shown by several studies, including an analysis of 1,471 blood serum samples taken from a clinically healthy population throughout the entire republic. This research, submitted at the 10th National Congress on Parasitology, held in Mexico City during 1980, also proved that there are geographical areas at high risk: the

central part of the republic and the lowlands, as has already been mentioned, where the positivity of the tests amounted to as much as 6 percent.

Of all the patients visiting the neurosurgical and neurological services at the various hospitals in the National Medical Center (General Hospital, Traumatology, Oncology and Pediatrics) with neurological problems, 20 percent show evidence of this parasitosis. In nearly 60 percent of these cases, the patients' symptoms bore a direct relationship to the presence of bladder-worms and they were incidental discoveries in the rest.

This coincides with the figures shown by the autopsies: In 56.7 percent of the cases, it was considered that the bladder-worms were responsible for the symptoms, and in the others, they were chance discoveries which did not produce clinical manifestations, as stated in a report by Dr Luis Lombardo, chief of the neurology service at the CMN [National Medical Center] General Hospital, that was published recently.

Dr Maria de la Luz Perez Palacios, who works in the Pediatric Unit of the SSA General Hospital, for her part, stated in her report at the first course on complete clinical parasitology given at that hospital center, that this disease holds an important place among the parasitoses affecting the child population. She claimed that the rate of children affected is high, primarily among schoolchildren between 6 and 12 years of age, owing to the fact that their diet includes pork and its by-products.

2909

SINALOA RECORD POLIO INCIDENCE—Culiacan, Sin. Dr. Salvador Pantoja Olvera, chief of preventive medicine of the social security administration stated here that the state of Sinaloa had in 1983 the highest incidence of polio in the nation, with 41 of the 204 cases reported in the country. He indicated that health authorities are concerned because children's polio was supposed to be under control. However, last year's statistics show that the disease spread among young children. In 1982, there were only 3 cases of polio. As a consequence of this new outbreak, there will be an extraordinary campaign of vaccination from the 23rd to the 27th of this month to counterattack the disease. Pantoja Civera [as published] pointed out that the zones most affected by polio were Navolato and Guasave, with 9 and 15 cases, respectively.

[Text] [Mexico City EXCELSIOR in Spanish 13 Jan 84 p 35 A] 12501

MORE AIDS LIKELY--NZPA Wellington--The chairman of the New Zealand Medical Association, Dr Dean Williams, said yesterday that undisclosed cases of Aids in New Zealand were highly likely. They posed a much greater risk to the country than the case being treated at Taranaki Base Hospital, Dr Williams said in Hamilton. An unnamed Taranaki man, brought home from Australia, is the first Aids sufferer to be treated in New Zealand. Aids, acquired immune deficiency syndrome, breaks down the body's immunity system, leaving it defenceless against infection. No cure has been found. Asked if the man posed any risk, Dr Williams said Aids was "an infectious disease the same as any other infectious disease. The precautions that would be taken by the Taranaki hospital staff would be sufficient to make it perfectly safe for staff and public alike. ... To me the greater risk will be that there may be cases in New Zealand unbeknown to us, and that is a much greater risk than a known risk properly cared for in a hospital," Dr Williams said. He added that it was "highly likely in a mobile population such as we have today" that there were such cases. [Text] [Auckland THE NEW ZEALAND HERALD in English 10 Feb 84 p 1]

MALARIA REPORTEDLY AFFECTS 50 MILLION NIGERIANS

Kaduna SUNDAY NEW NIGERIAN in English 12 Feb 84 p 1

[Article by Omfume Amurun]

[Text]

ABOUT 50 million Nigerians suffer from Malaria and over 120,000 children die from the disease before the age of five each year.

This was disclosed by the Minister of Health, Commodore P. S. Koshoni, while receiving a donation of antimalaria drugs worth \$100,000 from Roche Nigeria Limited.

In an address read on his behalf by Dr. E. Ademola Smith, the Federal Director of Public Health Services, the minister said that there was no area of this country that is free from malaria attack, adding that all age groups were exposed to the attach of the disease.

He revealed that malaria was responsible for between 13 to 15 per cent of patient attendance in hospitals, a situation, according to him, which overburdens the scarce resources of the nation's medical services.

Commodore Koshoni expressed the government's concern over the devastating effects of malaria on its people together with the associated socio-economic implications and the determination to give full support to its control.

He announced that about five million Nigerians in the rural communities were benefiting from the National Malaria Control Programme, adding that about 500,000 children below the age of 12 years as well as expectant mothers were under protection by means of monthly drug administration.

In his comment, Roche Area Manager, Mr. J. O. Morrison, said that as one of the leading pharmaceutical companies in anti-malaria production, they had decided to make their little contribution to help protect lives of children.

cso: 5400/100

TRYPANOSOMIASIS SAID NEGLECTET FOR LACK OF FUNDS

Kaduna NEW NIGERIAN in English 8 Feb 84 p 24

[Article by Dupe Motojehi]

[Text]

TRYPANOSOMIASIS may spread again in the country due to a drastic reduction in field surveillance, the Director of the Nigerian Institute of Trypanosomiasis Research, N.I.T.R., Alhaji Yakubu Magaji has said.

He told the New Nigerian in Kaduna yesterday that the institute, which had been engaging in field surveillance to control trypanosomiasis for nearly 40 years, had not done much since 1977 due to lack of funds.

Alhaji Yakubu said the institute used to carry out field surveillance on the average of 180-200 days bût this had gone down to an average of 30 days a year since 1977

He said due to lack of intensive surveillance, the trypanosome which cuases trypanosomiasis and carried by tse-tse fly and kills both humans and animals, could hit even areas that were free of it. The disease affects most of West Africa.

He said breakout of trypanosomiasis had been reported in Bendel and Anambra states that were known to be tse-tse free in the past. He attributed this to movement of the carriers from affected areas to those places.

Alhaji Yakubu said there was a need to carry out a national survey to assess the degree of the spread in order to combat it.

He said the International Atomic Energy Agency in Vienna, in conjunction with NITR and Federal Department of Pest Control, started a scheme to eradicate tse-tse fly in the country, adding that 95 per cent of them could be killed through spraying.

The remaining five per cent, he said, would be killed by male tsetse fly that would be sterilised and released in the affected

areas.

SICKLE CELL NOW RAMPANT--ABOUT 25 per cent of the entire population of this country are carriers of sickle cell. According to the secretary the Kaduna State Branch of the Sick Cell Club, Mr. R. O. Ibazemo, research by specialists had revealed that in every 100 children in Nigeria, one of them is a carrier of the destroy disease He said unlike other deseases carrier of sickle cell are scattered all over the country. Ahmadu Bello University Teaching Hospitals is one of the largest clinic which deals with sickle cell patients in the country. The secretary said that people are now becoming more enlightened at the nedd to attend clinics regularly for check ups. [Mariam Aleshinloye] [Text] [Kaduna NEW NIGERIAN in English 31 Dec 83 p 9]

DIARRHEA OUTBREAK IN KANO--AN outbreak of diarrhoea resulting from the consumption of adulterated cooking oil has been reported in Yakasai and Rimi quarters of Kano municipality, the Chief Sanitary Inspector of Health, Alhaji Haruna Muhammed has said in a statement. He said that when used for cooking, the oil foamed like detergent and smelled like soap. He advised whoever came across such a cooking oil to report to the health inspector in his area for necessary action. [Text] [Kaduna NEW NIGERIAN in English 9 Jan 84 p 9]

TUBERCULOSIS STATISTICS--IN every 100,000 people in Nigeria, 3,000 are suffering from tuberculosis (TB). As a result, 58,000 people die every year either quietly or unnoticed by the government. These facts were disclosed to the New Nigerian on Thursday by the Manager of Gruppo Lepetti Company in Nigeria, Malam Jauro Atiku Donga. Malam Jauro who is also a contributor to many conferences on T.B. in Nigeria, pointed out that his company has been enlightening the public on the dangers of tuberculosis now than ever before. He said that it was because of this that his company has manufactured a more effective drug that can cure T.B. quickly. This achievement he pointed out was brought about through the National Committee on T.B. Health Education Programme. He said Nigerian medical doctors have made remarkable achievements in Chemotheraphy by gradually modernising the regiment involve and reducing the long hospitalisation which is costly. Malam Jauro pointed out that the disease started receiving federal government's attention during the previous military administration adding that he has no doubt the National Committee on T.B. will continue to receive assistance from the present military government. [Text] [Kaduna NEW NIGERIAN in English 21 Jan 84 p 6]

CHARGES FOR CHOLERA INOCULATIONS--THE Ministry of Health is to re-introduce charges on innoculation against yellow fever and cholera. This was made known by the Health Minister Commodore Patrick S. Koshoni at the epidemiological division of the Onikan Health Centre in Lagos. The minister, who was on the second leg of his tour of establishments under his ministry also said that a review will be made on the N27,000 yearly rent payment for the Federal Staff Clinic at Tafawa Balewa Square Lagos. Commodore Koshoni said this was as a result of the present economic situation in the country. The minister also lamented on the absence of "quarantine bay" at the country's port health division. "Quarantine bay" is said to be a sort of incubator used to disinfect a foreigner suffering from a contageous disease from coming into the country. At the Federal Dental Clinic on Broad Street, Commodore Koshoni promised to look into the problem confronting the clinic and promised to reimburse it with funds for equipment to carry out its services effectively. [Text] [Lagos DAILY TIMES in English 9 Feb 84 p 26]

MEASLES DEATHS--Four people have been reported dead and 20 others are now receiving treatment after an out-break of measles in Banki town of Bama local government area of Borno State. The Higher Health Superintendent in-charge of Bama Health Office, Mr. James M. Mbaya, who confirmed this, said that the department had already alerted the Ministry of Health on the situation. Mr. James Mbaya disclosed that the department would embark on massive immunization programme as soon as the ministry meets its demand for more vaccines. The out-break of measles has also been reported in Bama town. The Headmaster of Bama Central Primary School, Malam Zanna, said many of the pupils have absented themselves from classes and suspected that they might have contracted the disease. [By Fatima Audu] [Text] [Kaduna NEW NIGERIAN in English 22 Feb 84 p 9]

MEASLES VACCINE: FIRST THIRD WORLD UNIT COMMISSIONED

Dubayy KHALEEJ TIMES in English 28 Feb 84 p 20

[Text]

ISLAMABAD — Pakistan became the first Third World country to embark on highly sophisticated technology of measles vaccine production with the commissioning of a plant here by President Zia-ul-Haq yesterday.

Built with initiative taken by Prince Talal ibn Abidelaziz Al Saud who, as special envoy of Unicel, contributed \$1.6 million to the total cost of \$3.1 million, the plant is the eighth such laboratory in the world. Canada provided the technology for the plant.

Apart from meeting the needs of all Pakistani children by 1985, the plant will be producing four million doses for export annually

Being one of the main killers of children under two in this country, measles will be the second major disease afer smallpox to be fully eradicated in near future in Pakistan.

According to a recent survey 2.1 million cases of measles are reported in Pakistan annualls with 51,000 deaths. Pakistan has undertaken an extended programme of imminisation directed against six presentable diseases of childhood including

measles, polio, diphtheria, pertussis, tetanus and tuberculosis.

Prince Talal, who is also president of the Arab Gulf Programme for United Nations Development Organisations (Agfund), was present at the simple commissioning ceremony at which President Zia declared that education and health would be two of his government's top most priorities.

Prince Talal called the plant a symbol of cooperation between nations and individuals and said it marked the first stage in efforts to control measles in this part of the world.

He said child and mother care reflected civilised interest and concern for a real problem which should be tackled first in a social development plan.

The measles vaccine plant will give impetus to Pakistan's projects to produce a tissue culture vaccine against rabies. Only three such laboratories exist in the world and Pakistan will again be the first in the developing world to produce this vaccine.

Prince Talal conveyed to Preudent Zia the greetings and good wishes of His Majests King Fahd ibn Abdelaziz of Naudi Arabia in Pakistan's endeavours for development and progress.

CONTAGIOUS DISEASES AMONG CHILDREN CONTROLLED IN SHANGHAI

Beijing RENMIN RIBAO in Chinese 5 Jan 84 p 3

[Text] Preventive inoculation work in Shanghai has progressed continuously both in quality and in quantity for the elimination and control of several acute infectious diseases among children and ensured children's health effectively.

For 6 consecutive years, there has been no occurrence of diphtheria. Polio is basically eliminated. Measles, whooping cough, Japanese encephalitis and meningococcal meningitis are under control with low incidence level. Taking measles as an example, from January to October 1983, the incidence is 2.08 in 100,000 which is a 99 percent reduction from the average annual measles incidence before the instrumentation of inoculation.

The preventive inoculation work in Shanghai has been strongly supported and valued by party and state leadership and assumed a regular position in the city's preventive medicine plan. The fund for its biological product is guaranteed and special personnel are assigned to engage in preventive inoculation work in the health and epidemic prevention stations at all levels of the city, neighborhood hospitals and commune clinics. The motto "an inoculation report line from the leadership to the rank and file, and a network of preventive inoculation covering the entire district" has ensured the carrying out of the inoculation missions within specified time limit and meeting the quality and quantity requirements. "One needle, one person" inoculation is strictly observed in the city, and most suburban areas by far also implement the one needle, one person practice.

In August 1983, using the WHO sampling investigation method, we found the average four-vaccine inoculation covering rate for the children up to the age of 1 in the city, and children within 1 1/2 years old in the suburbs to have reached 72.5 percent. The four-vaccine dose is a mixture of BCG vaccine, measles vaccine, polio vaccine, whooping cough, diphtheria and typhoid vaccine. Single-vaccine average inoculation rate is 91.7 percent for BCG vaccine, 92.4 percent for measles vaccine, 94.1 percent for polio virus vaccine and 81.5 percent for whooping cough-diphtheria-tyhpoid whole course.

With the progress in planned epidemic prevention work, corresponding contagious disease incidence decreased on a large scale. Notable economic and social results are being achieved through reduction in the manpower, materials and funds

required to treat these diseases in the past. For measles alone, there has been a reduction of 3.08 million yuan, which was the amount used to treat the disease in the past.

The above data shows that Shanghai is progressing toward the 80 percent coverage rate for the four-vaccine inoculation in year 1990 as proposed by the WHO in the preventive inoculation expansion plan.

12453

EFFECTIVE CONTROL OF VIRAL DISEASES SEEN BY 2000

OW291201 Beijing XINHUA in English 1127 GMT 29 Feb 84

[Text] Beijing, 29 Feb (XINHUA)--Several viral diseases may be effectively controlled or basically eliminated in China by year 2000, while the incidence of some others may be sharply cut.

Zhu Jiming, professor of virology at the China center of preventive medicine makes this forecast in one of three articles published in the latest issue of the news weekly OUTLOOK under the banner headline "The Prospects of Medical Science in China by the Year 2000." The other two articles discuss cancer and viral hepatitis.

Professor Zhu states that at present there are already effective vaccines against infantile paralysis, measles and rabies. He expects that these diseases will be effectively controlled or basically eliminated at that time, provided the technical problems involved in the production of the vaccines are overcome and a national immunization program carried through.

The incidence of hepatitis, epidemic hemorragic fever and encephalitis B may be cut sharply if applied research is stepped up in the coming years. It is now clear in what direction prevention and treatment should move. The first generation of vaccine against hepatitis B is in production, though not yet enough for wide use owing to a limited supply of blood, from which the vaccine is extracted.

The professor forecasts large-scale production of the next generation of vaccine against hepatitis B and vaccine against hepatitis A in the 1990s, along with the invention of effective pharmaceuticals for chemical therapy. Vaccine against epidemic hemorragic fever is then likely to be produced in large quantity.

Professor Zhu urges intensified research on the immunization mechanism of the viruses causing influenza, the common cold, pneumonia and their complications in order to effect breakthroughs in the prevention and treatment of these high-incidence diseases.

Three kinds of cancer are known to be closely related to viruses, Professor Zhu writes: These are nasopharyngeal carcinoma, liver cancer and the more recently discovered human t-cell leukemia. Serological methods for early detection of these three cancers are available. Research on vaccination against nasopharyngeal carcinoma and liver cancer is under way.

By the year 2000, Professor Zhu writes, research results in molecular virology will be applied in many fields; genetic engineering will provide safer, more effective and more easily produced and applied vaccines for the prevention of diseases, as well as interferons for their treatment; and cell engineering will provide various monoclone antibodies for quick diagnosis. Meanwhile, the relationship between virus and cancer will be further clarified and more effective pharmaceuticals for chemical therapy will appear.

The professor writes that he is optimistic about the prospects of preventing and treating viral diseases in view of the well-developed grassroots health organizations and quick progress of medical research in China.

GANSU MAKES PROGRESS IN CONTROLLING ENDEMIC DISEASE

Beijing RENMIN RIBAO in Chinese 19 Jan 84 p 2

[Article by journalist Bai Yun [4101 4596]]

[Text] Since the 3d Plenary Session of the 11th CPC Congress, Gansu, one of the seriously affected endemic disease epidemic regions in northern China, has made outstanding progress in endemic disease prevention.

Brucellosis, which once was widespread in Gansu Province, is now basically under control. Patients have been reduced from the 47,000 in 1972 to 4,000 now. The occurrence area of Keshan disease is being reduced yearly and has reached a historical record low during the past 3 years. Regional goiter is reported as having reached the indicator for having basically put the disease under control in 825 communes, or 80 percent of the total number of communes in the area. The general survey and prevention work of Kaschin-Beck disease and regional poisoning by fluorine are also underway. The use of orally taken sodium selenate for preventing the occurrence of Kaschin-Beck disease stems from the scientific research result in Gansu. It is so far the most effective technological measure for treating and preventing Kaschin-Beck disease and its use is being extended to the entire Gansu Province and elsewhere.

Endemic disease is a stumbling block for the masses in Gansu in their efforts to rise from poverty to affluence. There are many endemic diseases in Gansu, posing a direct threat to 11 million people in Gansu, or 60 percent of the total population. People living in the heavily affected areas became ill because of poverty. Their illness has, in turn, made them poorer. Poverty and illness have formed a vicious circle. Party and state leaders care about people's health in the disease-affected areas and attach much importance to disease-prevention work which is the fundamental reason for Gansu's outstanding progress in endemic disease prevention. For years, leading comrades from provincial, regional and county levels have visited patients in the disease-affected areas, studying and helping to solve the many problems confronting these areas. The provincial party committee and the provincial government meet every year to discuss endemic-disease-prevention work. These areas are incorporated in the construction plans as the old liberated area and the pastoral area. It is clearly regulated that the result in preventing endemic disease will be regarded as an important item in appraising the leading bodies of the provincial health department and concerned departments of the province. Despite the financial

difficulties of the province, the provincial government has allocated a special fund to be used for disease prevention, water reform and scientific research work in disease prevention and treatment.

12453

INCIDENCE OF KESHAN DISEASE DROPS IN HEILONGJIANG

Beijing JIANKANG BAO in Chinese 3 Jan 84 p 1

[Article by Yu Haiyuan [0060 3189 3293]]

[Text] The people in the occurrence area of Keshan disease in Heilongjiang have been struggling against the disease for more than 30 years under the inspiration of Comrade Mao Zedong's poem "Song Wenshen [Saying Farewell to the Epidemic God]" and the warm concern of the party Central Committee. Their outstanding achievement can be observed in the dropping of incidence from 32.7 per 100,000 to 1.3 per 100,000 and in the lightening of patients' conditions. In more than 20 municipalities and counties, acute Keshan incidents have disappeared for 5 to 15 years.

Being an endemic disease of high death rate and undetermined cause, Keshan disease has sudden onset of occurrence and is widespread in 16 provinces and autonomous regions, Heilongjiang being the most seriously affected province.

After the founding of the PRC, our party center and Comrade Mao Zedong were concerned with the prevention and treatment of this disease. Premier Zhou personally inquired into the prevention and treatment work, sending specialists and a regional health-care team to the heavily affected areas such as Keshan and Shangzhi County to study the cause and to develop prevention and treatment methods.

On 3 October 1958, Comrade Mao Zedong published the poem "Song Wenshen" which encouraged the cadres and the masses of the disease-affected area to deal vigorously with the disease and lent much impetus for driving out the "disease god." A special research institute was established in the province and a special Keshan Research Laboratory was set up in the Harbin Medical College. Approximately 200 scientific and technological workers are active in the disease areas yearround. Prevention and treatment organizations have been formed in the disease area communes and brigades. Villages also have their own country doctors or medical personnel for the Keshan disease.

To control disease occurrence and reduce death, state and regional government at all levels have successively allocated 10 million yuan during the past 30 years for treating acute Keshan disease patients free of charge. The provincial health department has also provided free preventive medicine. The masses

in the affected areas are widely mobilized to develop smoke-, cold- and dampness-prevention activities. They also are urged to take prevention measures on water quality improvement, environment improvement and food-handling improvement.

The 30 years of unceasing efforts have resulted in yearly reduction in disease incidents and deaths caused by the disease: 177 cases of acute Keshan disease in 1980, 114 cases in 1981, 90 cases in 1982, and 24 cases from January to October 1983. In Keshanxian, not a single Keshan disease incident has been seen for a period of 3 years and 8 months.

12453

COMMENTATOR URGES MORE SNAIL FEVER PREVENTION

HK070543 Beijing RENMIN RIBAO in Chinese 29 Feb 84 p 1

[Commentator's article: "Persistently Attend to Snail Fever Prevention Work"]

[Text] Great achievements have been made in preventing and curing snail fever in the 12 southern provinces and cities (or districts). Snail fever has been competely wiped out in 56 counties (or cities), and basically wiped out in 191 counties (or cities). Both the number of patients contracting snail fever and the area containing snails in the country have been reduced respectively by two-thirds. The emergence of the excellent rural situation in the south is partly due to the good performance of the snail fever prevention work. However, we should not fail to see that the task of preventing snail fever is still very arduous. At present, there are still more than 100 counties (or cities) which are unable to meet the requirement of basically eliminating snail fever. The remaining area of around 3 billion square meters containing oncomelania snails is mainly in complicated environments, such as rivers, lakes, seas, and hilly land, and in these places it is comparatively harder to eliminate the snails. Even in those places where snail fever has been basically wiped out, there are still some patients suffering from hard-to-cure complications of advanced stages of disease and remnants of the snails. It is also not an easy matter to cut off this "tail."

Both the blood flukes and the host snails are creatures which breed easily but are difficult to wipe out. Fighting them is just like sailing against the current — forging ahead or being driven back. A slight slackening will lead to a worsening of the epidemic situation, and the positive results already gained will face the danger of being nullified. At present, some young county and commune cadres and young peasants do not pay enough attention to snail fever prevention work because they lack the personal and immediate experience of the harmful effects brought about by snail fever. It is necessary to conduct propaganda and education to enhance the understanding of the broad cadres and masses on snail fever prevention work. They should establish the ideology of fighting a long-term battle, and must never back out halfway.

Recently, the CPC Central Committee readjusted and consolidated the central leading group for snail fever prevention work, held a national conference on this work, and made new arrangements in this respect. All the places affected by the disease should continue to strengthen the leadership on snail fever prevention, perfect the leading groups as soon as possible in association with structural reform, and duly bring into play the role of these leading groups.

It is necessary to study the new conditions and new problems related to snail fever prevention, and to make short-term plans and arrange long-range projects for each local area, in accordance with the principle of classified guidance and on the basis of

investigations and urgency, so that this work can be continuously carried out in a wellplanned manner. In accordance with the change in the situation of the rural areas, it is necessary to actively but steadily reform those measures which are no longer suited to the current situation, and to study and work out new methods and measures, to maintain the initiative of the peasants and the professional personnel in the prevention and cure of disease.

Coordinating the efforts of the agricultural sector, the water conservancy department, and other relevant departments is an effective experience in the work of snail fever prevention in the past years, which should be continuously popularized. Some comrades hold that snail fever prevention is the work of the snail fever prevention departments, and consequently there has emerged the phenomenon of doing a certain amount of work depending on payment of a certain amount of money, and of doing nothing if no payment is made. This is wrong. In matters such as the prevention and cure of snail fever, which need the persistent and extensive efforts of the masses and various sectors, concerted efforts should be made by all relevant departments, and the work should be jointly carried out by the state, the collective, and the individual.

Sending "the god of plague" sway should also depend on science. The experts, professors, and professional personnel engaged in small fever prevention should continue to make their contributions. It is necessary to pay close attention to the consolidation of the professional ranks in this respect, to do a good job in realizing the replacement of the old by the new, to enhance the political quality and technical level of the new members, and to help them establish the ideology of being heroes without fame. As long as we can make concerted efforts and quietly put our shoulders to the wheel, we are certain to be able to create a new situation in small fever prevention work.

SOUTHERN COUNTIES, CITIES ELIMINATE SNAIL FEVER

OW291109 Beijing XINHUA in English 0852 CMT 29 Feb 84

[Text] Shanghai, 29 Feb (XINHUA)—Fifty-six counties and cities in southern China are now free from schistosomiasis (snail fever), and another 191 have virtually eliminated the disease, said Chen Guodong, head of the antischistosomiasis leading group of the party Central Committee, at a national schistosomiasis conference which closed here yesterday.

Schistosomiasis has a history of more than 2,000 years in China and is a great threat to health. Surveys in 1955 showed that the disease was prevalent in 348 counties and cities in southern China's 10 provinces, one municipality and an autonomous region—Jiangsu, Zhejiang, Anhui, Jiangxi, Human, Hubei, Fujian, Sichuan, Yunnan, Guangdong, Guangxi and Shanghai.

In the past three decades, oncomelania, a freshwater snail which is the intermediate host of the blood fluke which causes schistosomiasis, has been eliminated over 11 billion square meters, and two-thirds of patients have been cured.

There are still 101 counties and cities affected by the disease and 3 billion square meters infested with oncommelania.

The meeting urged areas in question to take effective measures to eliminate schistosomiasis, and those where the disease has been virtually wiped out to continue consolidating their achievements.

According to a 1984 plan at the meeting, oncomelania should be eliminated from 100 million square meters and 450,000 patients cured. Twenty-four more counties and cities should then be free from schistosomiasis. Guangdong, Shanghai, Fujian and Guangxi should be completely free from the disease by the end of 1985.

A commentary in today's PEOPLE'S DAILY says that efforts are still called for to fight against schistosomiasis and train more specialized personnel.

PHILIPPINES

'MAJOR' LEPROSY PROBLEM SEEN IN 10 PROVINCES

Manila PHILIPPINES DAILY EXPRESS in English 20 Feb 84 pp 1, 6

[Article by Divina C. Paredes]

[Text] Leprosy, a crippling disease whose mode of transmission has not yet been fully determined, is already a major health problem in 10 provinces in the country, the Ministry of Health reported yesterday.

The Leprosy Control Service said that since the disease control program was started in 1955, the national prevalence rate of leprosy has steadily risen. It now afflicts around 71 per 100,000 population in the country.

The findings, reported during the eve of Leprosy Week which starts today, also revealed that while the detection rate has steadily increased since the start of the program, it dropped slightly last year.

There were 1,730 new cases a prevalence rate of less than 10 per 100,000 population, the MOH said.

Leprosy is characterized by lesion on the skin, waste of muscles and paralysis, which often disfigure its victims. The World Health Organization said leprosy is still widespread in 70 countries where 10 to 11 million suffer from the disease.

Leprosy is not hereditary and occurs mostly in tropical and sub-tropical countries. WHO experts said it was chiefly associated with poverty and a serious problem particularly in Africa and Asia.

Around four million victims all over the world are crippled while some less seriously affected people get better even without treatment. The WHO said, however, that the victims who are disfigured often experience psychological and social problems affecting even their families.

Leprosy sufferers often live in colonies together with other victims of the disease, as in the case of the Culion Leper Colony in Palawan. Unconfirmed reports reaching the MOH, however, stated that the disease is slowly spreading in crowded squatter colonies where sanitation is a major problem.

BACOLOD MEASLES DEATHS--Bacolod City (PNA)--Six babies have died since the outbreak of measles last January along the wards of the Holy Infant Nursery. Sister Emma Portoza, who manages the nursery, said 15 infants, ranging from three to six months, have been hospitalized at the Corazon Locsin Montelibano Memorial Hospital. The toddlers, most of whom had been immunized from measles, were immediately isolated from the rest of the wards, Emma said. As of today, Sister Emma added, there are still six infants confined at the Corazon Locsin Montelibano Memorial Hospital. The Holy Infant Nursery has a total of 31 wards, most of them abandoned children or orphans. [Text] [Cebu City VISAYAN HERALD in English 22 Feb 84 p 8]

NATAL TYPHOID CASES--MARITZBURG--Provincial hospitals in Natal are treating 156 confirmed typhoid cases, according to the MEC in charge of hospital services, Dr Fred Clarke. Dr Clarke said this was "very worrying" because the water-borne disease took so long to treat, unlike cholera, which could be treated in 24 hours. "It can be very prolonged and serious, although the mortality rate is not as high as cholera." [Text] [Johannesburg RAND DAILY MAIL in English 23 Feb 84 p 5]

TYPHOID DEATHS LAST YEAR--SEVENTY-EIGHT people died of typhoid in South Africa last year, the Minister of Health and Welfare, Dr Nak van der Merwe, said. This was out of a total of 4 665 cases reported from all four provinces, he said in written reply to a question from Dr Marius Barnard, the PFF spokesman on health. According to a breakdown of figures supplied by the Minister, 4 539 Blacks, 65 Coloureds, 40 Whites and 21 Asians were treated for typhoid. Seventy-two Blacks died of the disease, 46 in the Transvaal and 21 in Natal, while one White and three Coloureds, all in the Cape, died of the disease. The majority of typhoid cases among Blacks were reported in the Transvaal (3 247), followed by 1 187 in Natal. [Text] [Johannesburg THE CITIZEN in English 29 Feb 84 p 4]

DAR ES SALAAM SCHOOL CHILDREN MAY BE SCHISTOMIASIS SUFFERERS

Der es Salaam DAILY NEWS in English 2 Mar 84 p 3

[Text]

ABOUT 25 per cent of all primary school children in Dar es Salaam are feared to be suffering from Bilharzia (Schistosomiasis Haema tobium). a scientific research conducted in the city last year revealed yesterday

A parastologist at the Muhimbili Medical Centre in Dar es Salaam, Ndugu Rajendra Sarda, told a joint conference of the National Institute for Medical Research (NIMR) that the findings were based on a study of 12 schools from the three districts of the city, Shihata reported.

Ndugu Sarda said out of some 2,418 pupils of both sexes examined in 12 schools during the period. 466 were found infected with Schistosomiasis Haematobium (urinary Bilharzia) with 113 bilharzia cases out of 206 examined pupils. The Kigogo Primary School is the worst affected

Many participants to the conference felt that the chances were that many more pupils and even adults might be suffering from the disease.

NIMR's Director. Professor Wencelaus Kilama. observed that following the neglected sanitation measures for the past 15 years, it was obvious that the disease had reached higher proportions.

He caused laughter when he described the findings as "just a tip of the hippopotumus' nose in water." urging city authorities to take measures to contain it.

The research, undertaken at Tabata. Kinondoni Msasani. Tandika Mwananyamala and Kigogo revealed that the pupils took their bath in the disease in fected streams and ponds of their respective areas

It was further observed that the rise in Bilharzia cases was due to shortage of tap water which has forced the majority of people to use stream ponds water for their domestic use

Building of houses near swamps should also be discouraged the conference suggested

HOSPITAL DEATHS FROM MALARIA--FOUR types of drugs may be used to combat chronic malaria incurable by chloroquine, according to a research by the University of Dar es Salaam Faculty of Medicine's Parasitology and Entomology Department. The department's head, Dr. Charles Kihamia, said over the weekend that the research, which is still going on, had so far shown that chloroquine-immune malaria parasites had been identified as plasmodium falciparum. Dr. Kihamia said the research had further established that quinine, fansidar, proguanil and mefloquine were drugs that could be effectively applied against the parasites. He said a Soviet drug--dabechin--had also been tested in Bagamoyo District, but results had shown that it was not any more effective than chloroquine. He said figures at the Muhimbili Medical Centre in Dar es Salaam had shown that malaria accounted for about 4-5 per cent of all hospital deaths. The figure might be more as some cases went unreported in rural areas. [Selemani Mzee] [Text] [Dar es Salaam DAILY NEWS in English 20 Feb 84 p 1]

CHOLERA PATIENT HOSPITALIZED--THE Kilimanjaro Regional Health Department has warned the region's residents to ensure that they used toilet facilities, boiled water before drinking it, and observed all health rules, especially sanitary environmental conditions, to avoid cholera, Shihata reported. The warning came after one person was admitted at Mawenzi Hospital in Moshi town suffering from cholera. The sick person came from Kikavu area near Moshi. [Text] [Dar es Salaam DAILY NEWS in English 21 Feb 84 p 3]

SIX CHOLERA DEATHS--SIX people have died in Lugoba and Mwidu villages in Bagamoyo District, Coast Region, and 56 others have been admitted to Lugoba Health Centre following an outbreak of cholera, Shihata has reported. Reports from Bagamoyo say that a team of medical personnel has already been sent to the affected villages. The Bagamoyo District Medical Officer, Ndugu M. C. Ndonde said yesterday that the problem of water in Lugoba aggravated the problem because the villagers had to use dirty water. [Text] [Dar es Salaam DAILY NEWS in English 10 Mar 84 p 1]

LOSSES FROM RABIES NOTED

Bangkok SIAM RAT in Thai 18 Jan 84 pp 1, 12

[Article: "This Year, Losses From Rabies Amount to 100 Million"]

[Text] Rabies experts are appealing to the government to take a real interest in preventing rabies. They say that this disease results in economic losses amounting to 100 million baht a year.

A news report from the Ministry of Public Health states that on 18-19 January, a national-level conference was held for veterinarians at the Ratchaphruk Conference Hall, Faculty of Public Health, Mahidol University.

At this conference, Dr [Veterinarian] Prawit Chumkasien, a rabies expert from Mahidol University, presented a research report on the economic losses of patients who have received anti-rabies injections. What is very intersting is that the country spends at least 100 million baht a year to protect and help those exposed to this disease.

The report discussed the expenses of patients who have contracted the disease from dogs and other animals. Besides having to take a series of 14 or 21 injections, they have to waste time coming [to the clinic], they have to pay for the medication and they incur various other expenses. On the average, approximately 40,000 to 50,000 people contract this disease every year. The cost per patient is approximately 536.86 baht, which totals approximately 30-35 million baht a year.

Besides this, when the various expenses that the government incurs in preventing rabies--including wages, equipment, vaccine and other materials—are added to the expenses of the patients, losses total at least 100 million baht a year.

Based on this report, Dr Prawit concluded that besides being a public health problem, rabies is also an economic problem, with the country sustaining large economic losses both directly and indirectly each year. Thus, the government should attach real importance to formulating plans and to controlling and eliminating this disease. And this disease can be eliminated because we already know the important carriers of this disease.

11943

THAILAND

TRICHINOSIS STATISTICS REPORTED

Bangkok THAI RAT in Thai 28 Dec 83 pp 3,2

[Article: "Incidence of Trichinosis Increasing"]

[Text] Dr Prayun Kunasala, the director of the Epidemiology Division, Office of the Undersecretary of State, Ministry of Public Health, stated that from January to December this year, there have been 447 cases of trichinosis, with three of the patients dying. This is a disease that is transmitted to humans by animals. It is caused by a round parasite known as Trichinella spiralis. This parasite resides in the muscles of various types of animals such as pigs, wolves, bears, squirrels and rats. This roundworm is transmitted from one animal to another by eating the meat of the infected animal. Animals such as cattle and buffalos that are commonly eaten do not contract this disease. People contract the disease by eating raw or inadequately cooked pork. Symptoms include nausea, vomiting, diarrhea, fever, muscle soreness, edema of the eyelids and retinal hemorrhaging. And in some cases death occurs.

The provinces with a large number of cases include Chiang Mai, Chiang Rai, Nan and Mae Hong Son in the north. Most of the cases are due to the consumption of pork obtained from the hill tribes. The hill tribesmen let the pigs forage for themselves and do not keep them in pens. Thus, these parasites accumulate in the muscles of the pigs. Pig merchants like to buy pigs from the hill tribes because they are cheap. And they occasionally buy pigs from the hill tribes and raise them with they own pigs. This has led to this disease, which was once confined to the north, spreading to other regions.

However, if the people cook the pork well before eating it, they will not contract the disease. But people in the north like to eat inadequately cooked port to make "lap" [minced meat]. Also, more hill tribe youths than before are eating inadequately cooked pork. Thus, they may contract this disease. To prevent this disease, pigs must be raised in sanitary conditions. In purchasing pork for consumption, [the buyer] must be certain that the pork has been inspected by officials. And only well-cooked pork should be eaten.

11943

THAILAND

STATISTICAL, OCCUPATIONAL BREAKDOWN OF GONORRHEA VICTIMS

Bangkok SIAM RAT SAPPADA WICHAN in Thai 18 Dec 83 p 26

[Article by Pan Bandua: "Laborers and Venereal Disease"]

[Text] It has been revealed that among the various occupational groups, laborers have the highest incidence of venereal disease.

This was revealed by Mr Marut Bunnak, the minister of public health, after a recent meeting of the Committee to Solve the Venereal Disease Problem. The conference discussed the problem of venereal diseases spreading to the rural areas. It has been found that most of the provinces where venereal disease is prevalent are provinces that have many places of entertainment. Bangkok Metropolitan leads the way. In second place is Songkhla. In several other provinces such as Chiang Mai, Chonburi and Nakhon Ratchasima, the incidence of venereal disease is increasing rapidly, too. [In these provinces], there are large cities that attract many tourists. And so a high rate of venereal disease is natural.

Has anyone noticed that the large provinces where military bases are located show rather high rates of venereal disease? This is because [the soldiers] are all young men who are far from their homes and families. When they get lonely, they go drinking together and go to brothels. As a group, they are like a very efficient "venereal-disease dissemination unit." I would like to suggest to the military authorities in each region and to the provincial health organizations in the provinces where military bases are located that they take steps to treat [these people] and that they recommend preventive measures to the country's brave soldiers who might contract venereal disease. It should be possible to do this.

I feel certain that the military would cooperate fully in this. Because this would be better than allowing soldiers with venereal disease to suffer with the disease beyond the point of recovery. This would weaken the military. Isn't that right?

That is one of my observations. We should find ways to stop the spread of venereal disease. Each channel for spreading these diseases should be closed.

Since we know that venereal disease is most prevalent among laborers, it is the duty of the Department of Health, the Ministry of Public Health, and the Venereal Diseases Control Division to form a special service unit. The cooperation of the various factories must be obtained in order to examine people and treat those who are sick right at the factories. They must not wait for those who have such diseases to come to the clinics or hospitals. Some people may not be certain about whether or not they have a venereal disease or they may be hesitant about going for treatment or an examination. They may buy medicine on their own and not keep taking it until they are fully cured. And so the disease may build up a resistance to medication. This is one way for venereal disease to spread. The Ministry of Public Health is aware of this, but it has not made a real effort to solve the problem, claiming that it does not have enough officials to provide that level of service.

And don't forget that many of the women who contract venereal diseases from their husbands work in factories. Thus, taking action against venereal disease at the factories is the same as killing two birds with one stone. That is, this amounts to checking for venereal diseases in men and for infections that the women have contracted from their husbands. Because no man is going to play around with a prostitute and then go home and tell his wife.

Thus, wives of laborers and even wives of military personnel whose husbands go to brothels may contract a dangerous disease, that is, an infection of the pelvic region, which may eventually cause sterility.

And that is not the only danger. What is important is that the fetus may start to grow outside the uterus. If this is not treated in time, [the fetus] may die or the infant may be born handicapped.

At the same time, sexual promiscuity is one reason for the increase in the number of cases of "false" gonorrhea.

Based on a survey and from what the minister of public health, Mr Marut Bunnak, has said, another matter of concern is that the rate of incidence of venereal disease in 1983 was 643 people per 100,000 population. This is a very high rate.

Concerning this number, it was found that 359 per 100,000 had gonorrhea, which is 55.85 percent of all venereal disease cases.

As for the ages of those with venereal disease, most are in the 15-29 year-old age group. The ratio of men to women is 2:1. As mentioned above, the highest incidence is found among laborers followed by prostitutes, who in bureaucratic language are referred to as "special occupation women." These two groups are followed by government officials, students and housewives. The fewest sexual problems and the lowest incidence of venereal disease is found among farmers.

There is nothing strange about the fact that those found to have venereal disease tend to be younger. This is because people of this age are very interested in matters concerning sex. Both their own experiences and the mass media tempt and entice youths.

Since there is such direct and indirect reference to sexual matters, something that should be discussed is teaching children about sex correctly according to methods referred to as "sex education."

Let's not become bogged down in arguments concerning the proper grade level to teach sex education. Since the children of today first become interested in matters concerning sex and their bodies at the primary level, we should stop thinking that we can put off such instruction until the upper secondary level.

Instruction should begin when youths begin to show an interest in sex. At that age, youths test things in practice and so problems arise. Unable to solve the problems, their futures are runied. It is too late then.

Or if it is thought that we can just teach people to use condums to prevent venereal disease and pregnancy and that it is not necessary to teach sex education, it will certainly not be possible to reduce the incidence of venereal disease.

THAILAND

ANTI-MOSQUITO MICROORGANISM UNDER STUDY

Bangkok DAILY NEWS in Thai 14 Dec 83 pp 1, 2

[Article: "[Research on] the Production of Anti-Mosquito Microorganism Accelerated"]

[Excerpt] Damrong is mobilizing scientists from all over the country to produce a microorganism that can control mosquitos. He said that this can kill all the mosquitos in the country. A Thai scientist has been sent to discuss the matter with scientists of the British prime minister. A Canadian minister has been asked to coperate in conducting research on controlling mosquitos. USAID has given more than 3 million baht in aid.

Mr Damrong Latthaphiphat, the minister of science, technology and energy, was interviewed by reporters on 13 January at the ministry. He said that at present, the cabinet has given permission in principle to establish a national Genetic Engineering and Biotechnical Center. A budget of approximately 300 million has been alloted for this. [Research] work that has never been done before will be done here. Scientists from all the universities will be mobilized to do research in accord with government policies. One of the important projects is the production of a microorganism that can kill mosquitos and weeds. This will involve creating a new strain in the production of microorganisms that can be used to kill mosquitos.

Mr Damrong also said that at present, work has already begun. Scientists from Mahidol University are urgently doing research on the production of a microorganism that can be used to eliminate mosquitos permanently. This must be a microorganism that can propogate rapidly. Among those involved in this are Dr Somsak Phanyim, Dr Siriwat Wongsit and Dr Amret Phumirat. Concerning the production of an anti-mosquito microorganism, we will use raw materials present in the country. This will include such materials as flour and molasses. Last April, USAID gave \$150,000 (approximately 3 million baht) to support this anti-mosquito research. And we will ask for cooperation from the minister of energy, State of Alberta, Canada, in conducting this anti-mosquito research. Also, Mr Yongyut Naphawong, a Thai scientist, has been sent to discuss the matter with scientists of Mrs Margaret hatcher, the prime minister of England. and ask for their cooperation in doing research on producing an antimessuit, microorganism. If such a microorganism can be produced, toward v... . e.ess reed to use D.D.T.

11943

MALARIA PATIENTS ON RISE ON THAI-PRK BORDER

Bangkok THE NATION REVIEW in English 6 Feb 84 p 3

[Text] Patients of resistant malaria which has spread along the Thai-Kampuchean border have increased by about 20 per cent in the past few weeks following the recent influx of Kampuchean refugees into the Thai frontier, a health official told THE NATION during the weekend.

Director of the Public Health Ministry's Malaria Division, Dr Surin Pinitpong, said the risk of contacting the infectious disease among rangers has been high since they have to carry out their routine patrol along the border and the disease has also been transmitted to them by Kampuchean refugees.

He said the rate of malaria patients has been rather high in two eastern provinces of Chantaburi and Trat.

Dr Surin said the Public Health Ministry was recently given 300,000 antimalaria pills, known as Mesfloquine, by the World Health Organization and had distributed them to people and Kampuchean refugees in 10 provinces bordering Kampuchea.

Mesfloquine was once distributed to people in Chantaburi and it has proved to be efficient in curing malaria in only three days, he explained.

The number of patients from malaria throughout the country was estimated last year at about 200,000 people, he said.

Trat Deputy Governor Viravat Komsawet said miners who dig for gems in Borai District close to the borderline have also been infected to the disease and transmitted it to other people.

Surin Governor Saner Mulsartsathorn admitted that it would be rather difficult to completely eliminate the disease along the 60-km long Thai-Kampuchean border in the province.

GONORRHEA INFECTION RATE--Concerning the statistics on veneral diseases, Mr Marut Bunnak said that the Division of Veneral Diseases has received reports from 80 units nationwide on the number of people suffering from venereal disease. In 1983, the rate of infection was 643 people per 100,000 population, which is a very high rate. Of these, approximately 359 per 100,000 had gonorrhea, which is 55.85 percent of the total number of peole suffering from venereal disease. Mr Marut said that gonorrhea is a very dangerous disease that can lead to diseases of the pelvic area. It can cause sterility in women or cause the fetus to be situated outside the uterus. Besides this, another type of disease that is on the rise is "false" gonorrhea. About 42 people per 100,000 have this disease. Dr Amnuai Traisupha, the director of the Division of Venereal Diseases, said that at present, venereal diseases are spreading in the rural areas because of the economic and social development that has taken place. The statistics show that, on the average, there are at least 60,000 cases of gonorrhea a year. The greatest problem is that approximately 36 percent of the patients have strains that are drug resistant. This is because they have purchased drugs on their own. It was found that 90 percent of those with gonorrhea contracted the disease from Thai prostitutes. [Excerpt] [Bangkok MATUPHUM in Thai 9 Dec 83 pp 1, 21 11943

MALARIA AMONG KARENS--Karen refugees seeking shelter in Thailand are suffering from malaria and malnutrition, according to a field report received by the WORLD this morning. Three Karen refugees, two of them children, died from malaria two days ago at Mae Salit Camp, the report said. Some 7,000 Karens who have fled the fighting between Burmese government roops and Karen rebel forces are now temporarily housed in five makeshift camps near the Moei River in Tak Province. A Thai medical team said the Karens had been allowed to build makeshift huts in fields but they lacked toilets, water, food and medical supplies. About 50 percent of them were also suffering from malaria and malnutrition, it said. [Excerpt] [BK230759 Bangkok BANGKOK WORLD in English 22 Feb 84 p 3]

CHOLERA IN MONTHABURI--More than 30 patients admitted to Nonthaburi's Bamrat Naradun Hospital this month for diarrhoea were found to have cholera, it was

reported yesterday. Provincial public health officer Dr Chumphon Intharalak said about 100 patients were admitted to the hospital, which specializes in cholera cases. The provincial office has reported the outbreak to the Public Health Ministry and Dr Chumphon said no deaths had been reported [Text] [BK290359 Bangkok BANGKOK POST in English 29 Feb 84 p 3]

CHOLERA COUNT--According to the Bangkok Communicable Disease Control Division, from 12-19 February cholera victims throughout the country numbered 102, 1 of whom has died. From the beginning of January to 19 February there were 44 cholera victims in Bangkok. [Excerpt] [BK260928 Bangkok Domestic Service in Thai 0530 GMT 26 Feb 84]

GASTRO WARNING--THE MINISTRY of Health is advising the public to take preventive measures against the spread of gastro enteritis. It said an increasing number of children are being treated at the Oral Rehydration Units for the illness. The Ministry warns that all drinking water and water to be used for preparing meals should be boiled first. If there is any vomiting or diarrhoea, regular feeds should be stopped, except for breast milk. Should the symptoms occur, home treatment should be started with GESOL or coconut water. The GESOL solution should be mixed one packet to one litre of water and the child should be taken to the nearest health centre or hospital. [Text] [Port-of-Spain TRINIDAD GUARDIAN in English 23 Feb 84 p 3]

MALARIA SITUATION REVIEWED--Recently a conference was held by the Ministry of Public Health in Quy Mhon City, Nghia Binh Province to review the work done in 1983 to eradicate malaria from the provinces and cities of the south. During 1983 the provinces and cities of the south worked hard to increase spraying mosquitos with insecitcide and to treat malaria among the people. From tests conducted on over 1 million blood samples it was determined that the ratio of malaria parasite carriers in the provinces and cities of the south was 36.7 per 10,000. A total of 6 million instances were reported of dispensing preventive medicines and treatment of the disease. Through the many efforts made in eradicating malaria the provinces of central Vietnam and the central highlands have quickly lowered the ratio of malaria parasite carriers. Nghia Binh is the province in the south that has done the best in treating and eradicating malaria. In 1984 the provinces of the south will attempt to reduce the ratio of malaria parasite carriers by 20 percent among the population of the central part of South Vietnam and to 30 per 10,000 in the provinces of Nam Bo and Lam Dong Province. [Text] [Hanoi QUAN DOI NHAN DAN in Vietnamese 6 Feb 84 p 1]

REPORTED MALARIA OUTBREAK, DEATHS--CENTRAL Province Medical officer, Dr. Victor Chilombo has sent a team of medical officers to Kabwe rural to investigate reports of an out-break of malaria. Dr. Chilombo said yesterday that the results of the team's findings would be known this week. Recently, a team of pressmen which visited Kabwe rural discovered that malaria was on the increase in Chief Chitanda's area. According to ZANA investigations about three people died last week alone of suspected celebral malaria. At Lyuba village it was learnt that people have to travel a distance of over 40 kilometres to Mumbwa where the nearest clinic is. Headman Senti Lyuba said people in the area were being neglected because no government officials visited the area to check on their welfare. [Text] [Lusaka DAILY MAIL in English 20 Feb 84 p 5]

CHOLERA INCIDENCE, CONTROL MEASURES NOTED

Johannesburg RAND DAILY MAIL in English 23 Feb 84 p 5

[Article by Andre Viljoen]

[Text]

HARARE. — Health authori-ties in Zimbabwe have adopt-ed tough measures to confine a cholera outbreak in the eastern border region but have refused to disclose the

have refused to disclose the scale of the problem.

According to an informed but unofficial source some 2 000 cholera cases have been confirmed in the Chipinge and Chisumbanje districts since the outbreak last year.

A health official at a roadblock on the outskirts of the

affected area said this week many people had died.

An official in the eastern city of Mutare, about 150km north of the quarantine area, this week expressed opti-mism that the worst of the outbreak was over and had been successfully contained.

But there is concern after a single cholera case was re-portedly confirmed at Ru-sape, northwest of Mutare, last week.

Health officials and police-men continued to man roadblocks on all roads leading to the quarantine area this week. People leaving the area are required to take pre-ventive medicine and are not allowed to take out any fresh produce or water. Those entering are warned of the bealth risks.

Cholera is thought to have been introduced by starving Mozambicans.

Police and health department officials in Mutare re-cently persuaded 500 people at an annual church meeting

at an annual church meeting to disperse after it was learnt that some of the crowd had come from the cholera area. The Mutare Health Department has imposed a ban on all meetings requiring communal sleeping and temporary pit latrines and has also ordered that funerally take place only after consultake place only after consultation with health authorities and be attended by "essential

and be attended by "essential people" only.

Health teams are lecturing and distributing pamphlets on how to prevent the spread of cholera, and residents have been advised not to encourage visits from relatives and friends from cholera areas or to go there themselves without first consulting authorities.

cso: 5400/107

BRIFFS

CHOLERA PREVENTION MEASURES—MORE medical personnel will be sent into the Nyanga area bordering Mozambique to combat a possible outbreak of cholera. The new District Medical Officer for the area, Cde Xavia Chaka, said a second doctor and a nurse would be sent to the area to boost the medical team. The statement said, "some clinics have not seen a doctor for six months", adding the medical personnel would work on a project to mobilise people and build clinics to prevent the outbreak of cholera.—Ziana. [Text] [Harare THE HERALD in English 16 Feb 84 p 13]

THREE ANTHRAX PATIENTS TREATED—MORE than 27 (000 cattle died in Masvingo province last month because of poor grazing, the provincial animal health inspector, Mr Chris Diedericks, said yesterday. He told the Zimbabwe Information Services that anthrax vaccinations were continuing and in Gutu alone, 111 870 cattle were vaccinated last month. He also said three people had been treated at Gutu Hospital for eating anthrax-infected animals meat.—
[Text] [Bulawayo THE CHRONICLE in English 8 Feb 84 p 7]

RABIES VACCINATION FOR DOGS--Swakopmund: The State Veterinarian will be visiting Swakopmund in connection with the vaccination of dogs against rabies. First Vaccination: All dogs from the age of three months. Re-vaccination: 1. All dogs that have been vaccinated before one year of age. 2. All dogs that have been vaccinated three years ago. Rabies vaccination of dogs is compulsory. New vaccination certificates will be issued. These certificates will serve as a travelling permit. The vaccination is free of charge. Please keep the dogs under good control. [Excerpt] [Walvis Bay NAMIB TIMES in English 17 Feb 84 p 5]

COORDINATED EFFORTS URGED TO STOP RINDERPEST IN WEST AFRICA

Kaduna NEW NICERIAN in English 16 Jan 84 pp 1, 11

[Article by Waziri Garba]

[Text] A SENIOR lecturer and research fellow in veterinary medicine at the Ahmadu Bello University (ABU) Zaria, Professor Idris Abdulkadir, last Friday called for a co-ordinated programme by countries in the West African sub-region in order to stop the spread of rinderpest.

Professor Idris said such a common approach by the countries in the region, would minimise the risk of its outbreak.

Professor Idris made the call at Zaria while contributing to a discussion on rinderpest organised by the Association of Veterinary Studies, Ahmadu Bello University, Zaria, as part of activities marking the association's week.

He said the present effort by various authorities in the country to eradicate the disease, no matter how intensive, could only last for a short period.

This, according to him, "is because herdsmen who move from one area to the other in response to the vagaries of the season can spread the disease from country to country."

He accused both the governments and herdsmen of their lukewarm attitude towards preventive innoculation which, he said, had contributed to the spread of the cattle disease in the country.

Professor Idris said while the nomads did not bother to have their animals inoculated, governments were slow to take preventive measures even when the disease was reported to have broken out in some countries, until it was too late.

He said, some dishonest persons had taken advantage of the nomads' ignorance to innoculate cattle with all sorts of concoctions simply to make money.

RINDERPEST KILLS 150,000 CATTLE IN GONGOLA

Kaduna SUNDAY NEW NIGERIAN in English 12 Feb 84 pp 1, 4

[Article by Abu Tapidi]

[Text]

A FRESH outbreak of rinderpest — cattle killer disease — has been reported in Mabilla Plateau in Gongola State.

As a result, over 150,000 cattle have been killed in Sardauna Local Government area of the state.

A report from the state capital, Mbaga, War War, Mayo/Ngada, Njawai, Ndoro, Gembu, Nugoroje and Mai Samari.

According to the report, it was believed that some infested cattle migrated from the neighbouring Republic of Cameroun, thus spreading the deadly disease on the Mambilla Plateau

The village Head of Dorofi, Malam Barkindo, said the situation was very serious and described it as a "calamity that had betailen the cattle industry of the country."

According to available statistics. Sardauna Local Government area has the highest concentration and distribution of cattle in the country. It is estimated that there are over two million head of cattle in the area before the outbreak of the nudernest.

Malam Barkindo stated that the cost of a bull had now fallen drastically to about 50 Naira. He said even then, people were afraid to buy cows for fear of the disease.

He explained that although it was difficult to estimate the death toll, but conservatively, over 150,000 head of cattle have died during the fresh outbreak of

the disease

The state Commissioner for Agriculture, Animal Health and Forest Resources. Dr Umaru brahim Toungo, told a correspondent of the FRCN Yola, that a team of veterinary doctors and field staff had been deployed to the area for emergency operation.

He also explained that a special emissary had been despatched to Lagos to seek aid from the Federal Military Government.

The commissioner emphasised that the livestock industry was the mainstay of the economy of the state with a population of about 5.2 million cattle.

He said livestock rearing was therefore, not only means of the livelihood for a large portion of the people but also the backbone of the economy

SHORTAGES REPORTEDLY AFFECT RINDERPEST CAMPAIGN

Kaduna NEW NIGERIAN in English 16 Jan 84 pp 1, 11

[Text] BAUCHI State Chief Veterinary Officer, Dr Adamu Aliyu, said in Bauchi last Friday that the national rinderpest control campaign in the state had been seriously affected by the current shortage of essential commodities.

He told the News Agency of Nigeria (NAN) that most of the vehicles meant for the campaign were lying idle "as there are no lubricants to run them."

"Engine oil and gear oil are so hard to get and even when one gets them these days they are more often than not fake ones being sold at prohibitive prices," he said.

Dr. Aliyu said the campaign was also grappling with manpower and drug shortage problems.

The chief veterinary officer denied reports that a fresh outbreak of rinderpest had killed a number of cows in the state.

He said the situation had not deteriorated to that stage, but admitted that there was a case of 150 heads of cattle being affected by the disease in the Gombe Division of the state. He added, however, that no death had so far been reported of any of the cattle.

Dr. Aliyu said it was difficult to eradicate rinderpest completely at this stage because the movement of cattle in Nigeria was not being controlled.

PROBLEMS NOTED WITH RINDERPEST VACCINES

Supply to Gongola

Kaduna NEW NIGERIAN in English 22 Feb 84 p 9

[Text] About 2.5 million doses of vaccine have been provided to the Gongola State Government for the control of rinderpest, since the outbreak of the disease, last year.

Out of the vaccine, over 600,000 doses were provided to the Sardauna Local Government, where there is the highest concentration and distribution of cattle in the country, before the out-break of rinderpest.

Dr. Mohammed Shata, a veterinary doctor told the Major-General Mohammed Jega, who was on the Mambilla Plateau on a familiarisation tour that, the situation was grave because of the migratory nature of the livestock.

According to him, all hands were now on deck to contain the spread of the cattle killer disease. He said a serious problem was the vast territorial expense of the state, which had militated against effective quarantine of the affected cattle.

Meanwhile a special emissary led by the Commissioner fo Agriculture, Animal Health and Forest Resources had been despatched to Lagos to seek aid from Federal Military Government.

As at the time of compiling this report, the total death toll so far, was estimated at over 150,000 heads of cattle in the affected areas.

The areas worst affected are Mbamga, War War, Mayo/Ndaga Njawai, Ndoro, Gembu, Nguroje and Mai Samari.

It was believed that, some infected cattle might have migrated from the neighbouring Republic of Cameroun, thus, spreading the deadly cattle disease on the Mambilla Plateau.

Indian Vaccine 'Unsuitable'

Faduma NEW NICERIAN in English 23 Feb 84 ; 1

[Article by Dupe Motojehi]

|Text| The Chief Veterinary Officer of the National Veterinary Research, Institute, Vom. Dr. E. J. Okeke has said rinderpest vaccine imported from India was not good enough for use, and its importation should be stopped.

He told the National Committee on Rinderpest Campaign at its meeting held in Durbar Hotel, Kaduna vesterday that the vaccine brand from India could not "resist challenges."

The veterinary officer said rinderpest vaccine imported from Kenva was preferable and alerted the committee of the various brands of vaccine currently used in the country.

He said one had been intercepted by the National Veterinary Research Institute (NVRI) labelled "Rigakafin Bushiya" allegedly produced in West Germany and purported to have been authorised for use by the Universal Animal Health, USA.

He contended that all evidence suggested that the vaccine had been produced somewhere in this country, adding that this was a sabotage of the efforts being made to contain the disease in the country.

He said there had been instances where vaccine produced by the institute were sold out illegally under different labels by unidentified individuals.

He further said all efforts were being made to contain piltering or illegal disappearance of drugs from the institute.

The chief veterinary officer reported to the committee that production of vaccine by the institute had been on the increase adding that it produced 10 million doses last year as against eight million doses in 198...

If adequate means were made available to the NVRI, he said, it would be able to meet the vaccine need of the country.

Vaccine from Kenva

Elefuna NEW NICERIAN in English 24 Feb 84 p 16

[Lest]

THE Chief Veterinary Officer of the National Veterinary Research Institute, Vom, Dr. E.N. Okeke has said rinderpest vaccine imported from India was not good

enough for use, and its importation should be stopped.

He told the National Committee on Rinderpest Campaign at its meeting held in Durbar Hotel, Kaduna yesterday that the vaccine brand from India could not "resist challenges."

The veterinary officer said innderpest vaccine imported from Keriva was prefer ratile and alerted the committee of the various brands of

vaccine currently used in the country

He said one had been intercepted by the National Veterinary Research Institute. NVRI) labelled "Rigakafir Bushiya" allegedly produced in West Germany and purported to have been authorised for use by the Universal Animal Health, ISA

He contended that all evidence suggested that the vaccine had

been produced somewhere in this sabotage of the efforts being made to contain the disease in the country

He said there had been in stances where vaccine produced by the institute were sold out illegally under different labels by unidentified individuals

He further said all efforts were or illegal disappearance of drugs from the institute

I'm after the total country, adding that this was a reported to the contribute that total the tred, and a paration tax there of stitute had to er, on the in recess adding that it produced be mallion does last year as against eight million down in 1982.

If adequate means were made being made to contain pilfering available to the NVRI he said, if would be able to meet the vaccine need of the country

ANTIRINDERPEST CAN PAIGN REPORTEDLY SUCCESSFUL

Dar es Salaam DAILY NEWS in English 2 Mar 84 p 1

[Article by Musa Lupatu]

[Excerpt]

THE campaign against rinderpest is succeeding as investigations have revealed that the disease has stopped spreading in the country, a report by the Ministry of Livestock Development has said.

The report, made available to the Duly News in Dar ex Salaam vesterday, said laborators investigations had shown that the disease had stopped spreading in the country, or into the neighbouring countries of Malawi or Zambia.

It said 4,270,000 head of cattle had been vaccinated against the disease by February 15, this year in phase one of the campaign to check the spread of the disease that re-emerged in the first half

of 19k2 after disappearing for almost 15 years.

Some 5,634,600 were spent in the emergency campaign which began last May, and according to the report. "the disease has been well contained in cattle from the locus of infection in Kiteto District. Arusha Region

The disease that also resurfaced in a number of African countries, was first confirmed in butfalnes in April, 1982 in the Screngeti National Park and in June and November in Ngorongoro and Shambarai Division of Kiteto District.

The report said there "are also no further reports of the disease being reported in the wildfide," adding that close vigillance was being kept by veterinary field and game staff as well as laboratory people

It is most re-assuring that laboratory investigations by the animal research institute. Pirbright, UK, have not revealed any evidence of Rinderpest spreading further south in the country, or into neighbouring countries.—
Malawi or Zambia, the report noted.

The campaign concentrated in areas north of the Central Railway Line, but following a request by the government to the European Economic Community (FEC), a grant of 400,000 (European Currency Units) enabled the campaign to extend to other parts of the country.

Some 397,316 head of cattle in

horder districts with Zambia and Malawi were vaccinated as a first step in assisting to prevent the spread of the disease to other Southern Atrica Development Co-ordination Conference (SADCC) member countries, and westwards to Rwanda, Burundi and Zaire, the report has said.

The UN Food and Agriculture Organisation (FAO), the EEC and the British Government "all made valuable assistance to the campaign," according to the report.

report.

The FAO made available three million doses of vaccine and is currently upgrading the country's laboratory capacity to handle Rinderpest diagnosis, the report said.

According to the report, the

campaign has not been all that smooth due to several logistical problems including fuel and tyre shortages. As such, Kagera region which is considered "less risky, had to be left out in the campaign."

The report noted that the Government appreciated these problems and mobilised livestock owners who contributed some 6,840,000; in terms of free labour in cattle crush construction, collection of fire-wood for branding irons and food for vaccinating teams.

ZAMBIA

BRIEFS

CORRIDOR DISEASE CONTROL MEASURE--Veterinary and Tsetse Control Services Director, Mr Geoffrey Zyambo, has imposed restrictions on the movement of livestock in Mazabuka District following the outbreak of corridor disease in the area. According to the latest issue of the Government Gazette, Mr Zyambo expressed fear that the disease might spread to other cattle areas resulting in heavy mortality. [Text] [Lusaka DAILY MAIL in English 20 Feb 84 p 3]

ZIMBABWE

BRIEFS

PROGRESS AGAINST TSETSE FLY--BULAWAYO. BINGA and Gokwe districts will be free of tsetse fly in about four years, the deputy Minister of Agriculture, Cde Swithun Mombeshora, said yesterday. He was speaking during the official opening of the agricultural training centre near Binga. The \$20 000 centre was financed by various donors including Christian Care, the United States and Britain, through the Zimbabwe Trust. Cde. Mombeshora said Binga had a total of 15 000 head of cattle which were threatened by tsetse fly. Last year 7 146 smears had been taken from cattle and 118 of them were infected. The Department of Veterinary Services had injected 3 174 head of cattle against tsetse fly infection. Spraying had covered some 10 000 km² in the area. [Text] [Harare THE HERALD in English 10 Feb 84 p 1]

MOZAMBIQUE

BRIEFS

PLAGUE THREATENS RICE CROP--A larva known as the "Spodoptera exerpta," is causing concern among farmers in the cultivated areas of Beira City, affecting cooperatives, families, and the state and private sectors. The Agricultural Offices set up in the areas of Manga, the airport, Inhamizua and Munhava, in the capital of Sofala, are organizing spraying teams to attack the plague of larva in the rice fields. Meanwhile, the head of the Agricultural Rural Extension Service in the City of Beira told our reporter that the current spraying in the fields could be helped by rain. As he reported to us, this destructive pest, which damages the rice plant foliage, is a consequence of the prolonged drought afflicting southern Africa and thus Mozambique. Moreover, Domingos Madane said that each Agricultural Office has personnel to do the work in other neighboring zones also infested with the "Spodoptera exerpta" plague. "We are still experiencing a water shortage in the rice fields. We need more rain to develop our agriculture and especially to eliminate this pest." Domingos Madane said. [Text] [Beira DIARIO DE MOCAMBIQUE in Portuguese 18 Jan 84 p 3] 9805

PHILIPPINES

BUG-INFESTED PALAWAN RICE FIELDS MAY BE BURNED

Manila PHILIPPINES DAILY EXPRESS in English 21 Feb 84 p 6

[Text] Rice farmers of Taytay, southern Palawan, may have to burn their fields if pesticides and chemicals fail to kill black bugs which have destroyed crops in more than 1,000 hectares.

Barangay captain Mabini Supitran of Abungan in Taytay said the livelihood of some 700 farmers have been adversely affected by the black bug infestation.

Even agriculture field technicians have given up on the infestation in this town, saying that any harvest would be "miraculous."

The black bugs which are slightly bigger than ordinary bed bugs, eat the base of the palay, stunting the growth of the plant. They usually come out in swarms during the dry season and go under the soil during the rainy season.

Another way of controlling the black bug is by floodings.

The black bugs are believed to have been brought from Malaysian and Japan by boats carrying logs and other export items. [as published] The bugs are attracted by the strong light of the cargo vessels and follow the boats wherever they go.

THAILAND

SCIENTISTS FIND MICROORGANISM TO SUPPRESS RICE PLANT DISEASE

Bangkok DAO SIAM in Thai 1 Nov 83 p 3

[Article: "Chulalongkorn Finds Microorganism to Suppress Rice Plant Disease"]

[Text] Scientists at Chulalongkorn University have found a microorganism that produces a substance that suppresses rice plant disease. This can help solve the problem of residual amounts of anti-crop disease chemicals remaining in agricultural products and help eliminate the accumulation of harmful substances in the environment.

Associate Professor Nin Ubon, Associate Professor Kun Pricha and Miss Dararat Rotphaya from the Microbiology Department, Faculty of Science, Chulalongkorn University, together succeeded in separating a streptomysis organism from the soil. This microorganism can produce an antibiotic that kills fungi that cause disease in plants. This antibiotic is particularly effective against the fungus known as acrocilin driemorisi, which affects rice plants. This fungicidal antibiotic that can be produced can stop the spread of this disease and is not harmful to the rice.

Farmers in the developed countries have begun using antibiotics to suppress crop diseases in place of chemicals containing mercury or arsenic since the antibiotics are poisionous for specific things only. And less remains in the environment since the amounts used are 10-100 times less than in the case of chemicals. Also, they break up naturally very easily. However, the use of this antibiotic may lead to strains of disease that are resistant to the antibiotic. Thus, two or three types must be used alternately or alternating with the use of chemicals.

At present, the research team is conducting test production studies in order to obtain production capital and gather data to produce the antibiotic at an industrial level.

11943

CSO: 5400/4389

END

END OF FICHE DATE FILMED 5 April 1984